REMARKS

By this Amendment, claims 10, 12, 14, 18 and 20 are cancelled. Claims 1-9, 11, 13, 15-17 and 19 remain in the application. Thus, claims 1-9, 11, 13, 15-17 and 19 are active in the application. Reexamination and reconsideration of the application are respectfully requested.

I. Objection to Substitute Specification

On pages 3-4 of the Office Action, the Examiner objected to the substitute specification filed on October 5, 2006 for introducing new matter. The original specification disclosed the term "laundry index", and claims 10, 12, 14, 18 and 20 recited features directed to a "laundry index". In the July 10, 2006 Office Action, the Examiner rejected claims 10, 12, 14, 18 and 20 under 35 U.S.C. § 112, second paragraph, as being indefinite because the original specification did not define the meaning of the term "laundry index", and therefore, one skilled in the art would not know what data is included in a laundry index.

The Applicant submitted a substitute specification and abstract with the October 5, 2006 Amendment. In addition to correcting grammatical and idiomatic errors in the original specification, a definition of the term "laundry index" was also added in two areas of the substitute specification. In particular, a definition of the term "laundry index" was added in the Summary of the Invention and the Detailed Description of the Invention sections of the substitute specification at the first instance where the term "laundry index" appeared in these sections.

However, on pages 3-4 of the Office Action, the Examiner objected to the added definition of the term "laundry index" in the substitute specification, asserting that the definition constituted new matter that was not present in the original specification.

Accordingly, to overcome the objection to the specification, the substitute specification has been revised to remove the two definitions of the term "laundry index" that were added to the substitute specification. No new matter has been added.

Having removed the subject matter which the Examiner believed to be new matter, the Applicant respectfully requests the Examiner to enter the above amendments to the substitute specification, and to withdraw the objection to the specification.

II. Written Description Rejection

On page 4 of the Office Action, claims 10, 12, 14, 18 and 20 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner asserted that the originally filed specification and claims do not provide a definition of the term "laundry index," and therefore, one skilled in the art would not be able to ascertain the scope of protection of claims 10, 12, 14, 18 and 20.

This rejection is believed to be moot in view of the cancellation of claims 10, 12, 14, 18 and 20.

III. 35 U.S.C. § 103(a) Rejections

On page 5 of the Office Action, claims 1, 3, 7-9, 11 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boyer et al. (U.S. 6,268,849, hereinafter "Boyer") in view of Manson et al. (U.S. 6,543,051, hereinafter "Manson") and further in view of Tsuyoshi Megata (JP 36-3200689, hereinafter "Megata"). This rejection is respectfully traversed for the following reasons.

(A) Claim 1

Claim 1 recites a recording/viewing support apparatus for supporting recording or viewing of a program selected by a user as a desired program from among programs scheduled to be aired as digital broadcasts. The apparatus of claim 1 comprises program specifying information obtaining means for obtaining program specifying information that specifies the desired program based on an operation by the user.

The apparatus of claim 1 also comprises weather forecast information obtaining means for obtaining, based on the program specifying information, weather forecast information for a relevant weather at a location where the digital broadcast will be received during a broadcast time period of the desired program as relevant weather forecast information.

In addition, the apparatus of claim 1 comprises determining means for determining, based on the relevant weather forecast information, whether or not the

relevant weather will be so bad as to degrade the desired program in image quality or sound quality.

The apparatus of claim 1 also comprises notifying means for giving, when the determining means determines that the relevant weather will be bad, a notice of a possibility of degradation in image quality or sound quality of the desired program.

Accordingly, claim 1 defines that the weather forecast information means obtains weather forecast information of the relevant weather of the location where the digital broadcast will be received during a broadcast time period of the desired program as relevant weather forecast information.

Further, claim 1 defines that the determining means determines, based on the relevant weather forecast information, whether or not the relevant weather will be so bad as to degrade the desired program in image quality or sound quality.

With this construction, the recording/viewing support apparatus of claim 1 is able to notify the user about the possibility of a degradation in the image or sound quality of the program he or she wants to record based on the relevant weather forecast information.

In particular, the determining means determines whether or not the relevant weather will be so bad as to degrade the desired program in image quality or sound quality, based on the relevant weather forecast information. Claim 1 recites that the relevant forecast information is the weather forecast information of the relevant weather of the location where the digital broadcast will be received during a broadcast time period of the desired program that the user wants to view or record.

Accordingly, this feature of the present invention provides an advantageous and novel effect in which a degradation in image or sound quality can be predicted for not only a currently received program, but also for a program that is to be broadcasted in the future.

Boyer discloses an internet television program guide system in which a user can specify a program listing for a desired program (see Column 5, lines 45-67). In addition, Boyer discloses that a user can select an option on a web page to display local weather conditions that are available on local cable web site pages (see Column 7, lines 54-62). Further, Boyer discloses that real-time data pertaining to the weather may be embedded within the program listing of an outdoor event such as a marathon, which may be in

progress and being televised or which may be scheduled to be televised in the near future (see Column 4, lines 63-37).

Accordingly, Boyer merely discloses that a user may select program listings for a desired program over the Internet, where the program listings may have real-time weather data regarding a presently broadcasting program or a program that is to be broadcasted in the near future.

However, as acknowledged by the Examiner, Boyer clearly fails to disclose or suggest determining means for determining, based on the relevant weather forecast information pertaining to the relevant weather of the location where the digital broadcast will be received during a broadcast time period of the desired program, whether or not the relevant weather ***will be*** so bad as to degrade the desired program in image quality or sound quality, as recited in claim 1.

In an attempt to teach this feature, the Examiner applied Megata.

Initially, it is noted that the Applicant asserted in the October 5, 2006 Amendment that the machine translation of the term "attenuation" should have been "accumulation". The Applicant had this belief because the term "attenuation" means to lessen the amount of, or to reduce the severity of.

Megata discloses "a television tuner for satellite broadcasting which outputs a Telop signal from a video signal output terminal 11 so as to display a message indicating that the quality of a received signal is much deteriorated because of rain-fall attenuation at the time of rain-fall attenuation occurrence" (see lines 17-22 on page 4 of Megata). In the context of this quoted passage, the term "attenuation" was believed to have been "accumulation" because Megata is concerned with whether current weather conditions (e.g., rain fall accumulation) cause the received signal to be attenuated (lessened or reduced).

Nevertheless, the disclosure of Megata clearly does not disclose or suggest the determining means as recited in claim 1 for the following reasons.

As described above, Megata discloses a television tuner for satellite broadcasting that outputs a signal to display a message indicating that the quality of a received video image is deteriorated (attenuated) because of rain-fall attenuation. That is, Megata determines whether that the satellite-received signal is currently being deteriorated

because rain fall attenuates the satellite-received signal. When the video signal quality becomes deteriorated, satellite subscribers may erroneously conclude that the cause of the deterioration is due to a problem with the TV tuner instead of the weather (see lines 9-15 on page 4 of machine translation of Megata).

Megata detects a degradation in image or sound quality of a desired program carried on a satellite-received signal when a signal level decreases due to rain-fall attenuation. In other words, Megata discloses that when rain-fall attenuates the satellite-received signal, the image or sound quality of a desired program is deteriorated.

Accordingly, Megata merely discloses a technique of notifying satellite subscribers that the cause of degradation in video signals is due to rain-fall attenuation, so that the subscribers do not erroneously conclude that there is a problem with the tuner. Megata also discloses that the cause of signal deterioration can be notified to the satellite subscriber even if the cause of signal deterioration is not related to rain-fall attenuation.

Nevertheless, Megata only discloses a system of for notifying the satellite subscriber of a current deterioration of a signal reception level. In particular, Megata clearly discloses that the system "outputs a Telop signal from a video signal output terminal 11 so as to display a message indicating that the quality of a received signal is much deteriorated because of rain-fall attenuation at the time of rain-fall attenuation occurrence" (see lines 17-22 on page 4 of Megata).

However, the determining means of claim 1 determines whether or not the relevant weather ***will be*** so bad as to degrade the desired program in image quality or sound quality, based on the relevant weather forecast information pertaining to the relevant weather of the location where the digital broadcast ***will be*** received during a broadcast time period of the desired program.

Accordingly, since Megata discloses determining whether a currently received program is deteriorated in image or sound quality at the time of rain-fall attenuation, Megata clearly fails to disclose or suggest determining, based on the relevant weather forecast information pertaining to the relevant of the location where the digital broadcast *will be* received during a broadcast time period of the desired program, whether or not the relevant weather *will be* so bad as to degrade the desired program in image quality or sound quality, as recited in claim 1.

As described above, Boyer discloses that real-time data pertaining to the weather may be embedded within the program listing of a televised event which may be scheduled to be televised in the near future (see Column 4, lines 63-37). However, even including this feature of Boyer with the disclosure of Megata, the combined systems of Boyer and Megata still do not result in the determining means of claim 1.

In particular, Megata only discloses a system for determining whether satellite-received programs are deteriorated in image or sound quality based on at the time of occurrence of rain-fall attenuation. Therefore, the system of Megata specifically requires current weather conditions to determine whether satellite-received signals are being deteriorated at the time of rain-fall attenuation, because Megata determines whether signals are being deteriorated at the time they are received.

Thus, even if the systems of Boyer and Megata were combined and the system of Megata received embedded data in the satellite-received signal pertaining to future weather conditions, Megata would not determine or predict whether programs to be broadcast in the future will be deteriorated, because Megata determines the cause of a current deterioration of signal reception levels for satellite subscribers and notifies the satellite subscribers of the cause of deterioration as it is occurring. Accordingly, Megata specifically requires the signals to be deteriorated due to rain-fall attenuation before the system informs the satellite user that the poor signal reception is due to rain-fall attenuation and is not due to a problem with the user's TV tuner.

Therefore, even if Megata was supplied with the future weather conditions of Boyer, Megata determines whether signals are deteriorated due to weather conditions as the signals are being deteriorated.

Accordingly, the Applicant respectfully submits that Boyer and Megata, either individually or in combination, each fail to disclose or suggest the determining means of claim 1.

Manson merely discloses that an emergency alert message (EAM) such as a hurricane warning is displayed on a television screen regardless of whether the television receiver is programmed to receive analog or digital broadcasts.

However, Manson also clearly fails to disclose or suggest determining means for determining, based on the relevant weather forecast information pertaining to weather

forecast information for a relevant weather at a location where the digital broadcast ***will be*** received, whether or not the relevant weather ***will be*** so bad as to degrade the desired program in image quality or sound quality, as recited in claim 1.

Therefore, for at least the foregoing reasons, the Applicant respectfully submits that Boyer, Megata and Manson, either individually or in combination, clearly fail to disclose or suggest the determining means of claim 1.

Consequently, no obvious combination of Boyer, Megata and Manson would result in the invention of claim 1, since Boyer, Megata and Manson, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claim 1.

Therefore, the Applicant respectfully submits that claim 1 is clearly patentable over Boyer, Megata and Manson.

(B) Claim 13

Claim 13 recites a recording/viewing support apparatus for supporting recording or viewing of a program selected by a user as a desired program from among programs scheduled to be aired as digital broadcasts. The apparatus of claim 13 comprises program specifying information obtaining means for obtaining program specifying information that specifies the desired program based on an operation by the user. The apparatus of claim 13 also comprises weather forecast information obtaining means for obtaining, based on the program specifying information, weather forecast information for a relevant weather at a location where the digital broadcast ***will be*** received during a broadcast time period of the desired program as relevant weather forecast information.

In addition, the apparatus of claim 13 comprises storing means for storing correlation data that relates the weather forecast information to a receive level degradation probability defined as a probability at which a receive level of the digital broadcast is smaller than a predetermined level threshold value.

Accordingly, claim 13 recites that the correlation data shows a relationship between a probability of precipitation and a receive level degradation probability.

This feature of the present invention enables pieces of correlation data for various locations (e.g., mountainous areas, coastal areas, etc.) to be prepared, which makes it possible to obtain highly reliable information to determine the possibility of future

deterioration of the signal reception level when the user wants to view or record the desired program that is scheduled to be aired. Based on this reliable information, various processes for enhancing the user's convenience (e.g., announcing the possible deterioration of the signal reception level in advance and searching for an alternative future time during which the desired program is to be aired) can be performed.

As acknowledged by the Examiner, Boyer clearly fails to disclose or suggest a storing means for storing correlation data as recited in claim 13. In an attempt to teach this feature, the Examiner applied Megata.

However, as demonstrated above, Megata determines the cause of a current deterioration of signal reception levels for satellite subscribers and notifies the satellite subscribers of the cause of deterioration as it is occurring. Furthermore, although Boyer discloses that a user can receive weather information of a program to be broadcast in the near future, even if Megata was to receive such future weather information, Megata determines that signals are deteriorated at the time that they are being deteriorated due to current weather conditions.

Furthermore, as described above, the correlation data as recited in claim 13 shows a relationship between a probability of precipitation and a receive level degradation probability (see Figure 11, for example). This correlation data, however, does not merely represent a simple linear relation. In order to extract this correlation data, statistical processes are required to be performed. The Examiner appears, however, to believe that merely combining the weather forecast information of Boyer with a notifying means for notifying a possibility of degradation in image quality or sound quality of the desired program to a user would result in the storing means of claim 1.

However, as demonstrated above, Megata clearly fails to disclose or suggest the storing means of claim 1, because Megata merely determines a degradation in signal quality as the degradation is occurring. Therefore, even if Megata was to receive future weather conditions, Megata would not store correlation data that relates the weather forecast information to a receive level degradation probability defined as a probability at which a receive level of the digital broadcast is smaller than a predetermined level threshold value, as recited in claim 13.

Therefore, Boyer and Megata clearly fail to disclose or suggest the storing means of claim 13.

However, similar to Megata, Manson clearly does not disclose or suggest storing correlation data that relates the weather forecast information to a receive level degradation probability defined as a probability at which a receive level of the digital broadcast is smaller than a predetermined level threshold value, as recited in claim 13.

Therefore, for at least the foregoing reasons, the Applicant respectfully submits that Boyer, Megata and Manson, either individually or in combination, clearly fail to disclose or suggest the storing means of claim 13.

Consequently, no obvious combination of Boyer, Megata and Manson would result in the invention of claim 13, since Boyer, Megata and Manson, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claim 13.

Therefore, the Applicant respectfully submits that claim 13 is clearly patentable over Boyer, Megata and Manson.

On page 12 of the Office Action, claims 2, 4-5, 15-17 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boyer in view of Manson and Megata and further in view of Bottomley et al. (U.S. 5,508,732, hereinafter "Bottomley"). Further, on page 13 of the Office Action, claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Boyer, Manson and Megata in view of Bottomley and further in view of Kim et al. (U.S. 6,549,905, hereinafter "Kim").

As demonstrated above, Boyer, Megata and Manson clearly fail to disclose or suggest each and every limitation of claims 1 and 13.

Similar to Boyer, Megata and Manson, the Applicant respectfully submits that Bottomley and Kim also fail to disclose or suggest the determining means of claim 1, and the storing means of claim 13.

Therefore, Bottomley and Kim do not cure the deficiencies of Boyer, Megata and Manson for failing to disclose or suggest each and every limitation of claims 1 and 13.

Consequently, no obvious combination of Boyer, Megata, Manson, Bottomley and Kim would result in the inventions of claims 1 and 13 since Boyer, Megata, Manson,

Bottomley and Kim, either individually or in combination, clearly fail to disclose or suggest each and every limitation of claims 1 and 13.

Furthermore, it is submitted that the clear distinctions discussed above are such that a person having ordinary skill in the art at the time the invention was made would not have been motivated to modify Boyer, Megata, Manson, Bottomley and Kim in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 1 and 13.

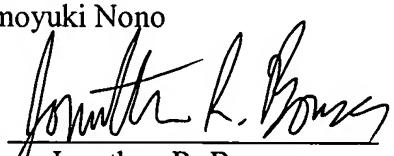
Therefore, it is submitted that the claims 1 and 13, as well as claims 2-9, 11, 15-17 and 19 which depend therefrom, are clearly allowable over the prior art as applied by the Examiner.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Tomoyuki Nono

By: 

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